

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

|                              |   |                     |
|------------------------------|---|---------------------|
| In the Matter of             | ) |                     |
| Federal-State Joint Board on | ) | CC Docket No. 96-45 |
| Universal Service            | ) |                     |

**COMMENTS**

The National Exchange Carrier Association, Inc. (NECA) submits these comments in response to the Commission's December 22, 1999 *Public Notice* in the above-captioned matter.<sup>1</sup>

The Common Carrier Bureau seeks comments on requests submitted by certain state commissions and the Rural Utilities Services (RUS)<sup>2</sup> asking the Commission to redefine "voice grade access" in section 54.101 of the Commission's universal service rules. That provision currently specifies that voice grade access should occur in a minimum frequency range of 300 Hz to 3000 Hz. In petitions and presentations submitted in early 1998, RUS and the state commissions requested that the Commission increase the minimum bandwidth requirement to between 200 or 300 Hz and 3400 or

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<sup>1</sup> See Common Carrier Bureau Seeks Comment on Requests to Redefine "Voice Grade Access" for Purposes of Federal Universal Service Support, CC Docket No. 96-45, *Public Notice*, DA 99-2985 (rel. Dec. 22, 1999)(*Public Notice*).

<sup>2</sup> See Petition for Reconsideration of the North Dakota Public Service Commission, Petition for Reconsideration of the South Dakota Public Utilities Commission, and Petition for Reconsideration of the Washington Utilities Commission, CC Docket Nos. 96-45, 96-262, 94-1, 91-213, 95-72 (Feb. 12, 1999)(*State Petitions*); and *Ex Parte* Presentation of the Rural Utilities Service, dated January 27, 1998 (*RUS Ex Parte*).

3500 Hz.<sup>3</sup> According to RUS and the state commissions, increasing the required bandwidth in this manner will permit customers in rural areas to use modems to access data services, such as the Internet, at speeds of up to 28.8 kilobits per second (kbps).

While the creation of incentives for rural infrastructure development should be an important objective of regulators, revising the current minimum bandwidth requirements for voice grade universal service at this time would not be an effective solution for several reasons. Revising the current standard will impose significant and widely disparate cost burdens on telephone companies serving rural areas. Yet, the benefits of requiring companies to upgrade existing voice-grade plant, to accommodate only slightly higher analog modems (a technology that is rapidly becoming outdated) are dubious at best. Under the Commission's rules, moreover, the federal Universal Service Fund (USF) supporting high cost rural telephone companies is currently "capped" at below-cost levels. Under the USF cap, rural companies do not receive full high cost support for their existing networks; requiring enhancements would only exacerbate the problem.

As discussed below, there are alternative means for the Commission to promote the availability of high-speed access to the Internet in rural areas. Broadband technologies, particularly xDSL services, are now being introduced at a rapid pace. Instead of forcing companies to upgrade existing plant designed to provide adequate and reasonably economical voice grade service, the Commission should instead consider ways of speeding the deployment of broadband services in rural areas, perhaps in the context of its advanced services proceeding.

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<sup>3</sup> See *Public Notice* at 2.

## Discussion

Rural telephone companies typically deploy very long copper “loops” to reach customers. Bandwidth over these loops is limited, however, by the need to install induction or “loading” coils at intervals in the wire. These loading coils permit the transmission of intelligible speech over long distance loops, but limit the frequency range, in some cases preventing the ability to provide transmission speed of 28.8 kbps.

These technologies, developed over many years, are recognized as an economical way to provide high quality voice-grade service in rural areas. If expanding the bandwidth of this plant by a few hundred hertz could be accomplished simply or inexpensively, it might make sense to increase the minimum standard. The costs of upgrading existing loops to accommodate even slightly higher data transmission speeds are likely to be substantial, however, costing small companies millions of dollars in new outside plant and transmission electronics.<sup>4</sup>

Worse yet, under the Commission’s current high cost support rules, adequate funding for existing service, much less the cost of upgrades, is not currently available to rural companies. This occurs because the high cost fund is subject to an “interim” cap, imposed by the Commission more than 6 years ago.<sup>5</sup> For example, in 1999, the funding requirement for high cost support for the industry was approximately \$926.9 million.

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<sup>4</sup> The cost of load coil removal alone, for example, has been estimated to be as high as \$1,400 per loop by Bell Atlantic. *See* Proceeding on Motion of the Commission to Examine New York Telephone Company’s Rates for Unbundled Network Elements, *Opinion and Order Concerning DSL Charges*, NY Public Service Commission, Case 98-C-1357, Opinion No.99-12 at Appendix B (Dec. 17, 1999). For small rural companies providing service to isolated customers in a large service territory, per loop costs would likely be much higher.

<sup>5</sup> *See* 47 C.F.R. § 36.601 (c). *See also* Amendment of Part 36 of the Commission’s Rules and Establishment of a Joint Board, *Report and Order*, 9 FCC Rcd 303 (1993).

Under the interim cap rule, available funding based on year-over-year growth in loops equals only \$864.1 million, a shortfall of nearly \$63 million. Because the USF is not fully funded, additional costs associated with line upgrades would not be supported.

Under these circumstances, revising the standard would not only fail to improve access to better data services, it could increase the cost and decrease the availability of *voice-grade* universal service. It is difficult to imagine a more counter-productive approach to universal service policy.

This proposal appears especially questionable in light of recent advances in technology and the marketplace. Modems with data transmission speeds of 28.8 kbps were once considered “state of the art.” Now, they are seen as slow compared to the 56.6 kbps and faster modems that are now commonly available. Further, analog modems themselves are rapidly becoming outdated, as companies deploy various broadband technologies, such as xDSL services, to allow high-speed access to the Internet.

These advanced services are becoming the marketplace standard. NECA traffic sensitive pool members, for example, serve some 5.8 million business and residential customers. Approximately 151 member companies, serving more than 1.4 million lines, are in the process of deploying DSL technology in their service territories.<sup>6</sup> NECA is currently planning to tariff additional xDSL services that are specifically designed to provide high-speed data access over long loop lengths.<sup>7</sup> This technology holds promise

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<sup>6</sup> See *Access Market Survey of NECA's Traffic Sensitive Pool Members*, National Exchange Carrier Association, Inc., p. 11 (1999).

<sup>7</sup> ISDN Digital Subscriber Line (IDSL, now being proposed as a NECA tariff offering) provides data speeds of up to 144 kbps on long copper loops (greater than 30,000 feet) and can be integrated with Digital Loop Carrier Systems (DLC). NECA's current tariff offering for SDSL (Symmetric Digital Subscriber Line) also (continued on next page)

for delivery of high-speed network access, capable of supporting many different modes of advanced communications capabilities, and may well be the most practical method of upgrading the local loop for data transmission services.

These technological and marketplace developments strongly militate against changing current, accepted standards for voice grade universal service. Requiring companies to invest huge sums of money for outdated analog modem technology would not serve the public interest, particularly since, under the “interim cap”, additional high cost funding for these upgrades is not available. Depriving rural companies of universal service support if they fail to upgrade their plant would only cause universal service to suffer in areas that it is most needed.

Instead of requiring companies to invest in outdated technology, the Commission should consider ways to expand the availability of high-speed access to the Internet using current and future technology, perhaps in the context of its Advanced Services proceeding.<sup>8</sup>

If, however, the Commission decides to revise its universal service funding eligibility rules to accommodate 28.8 kbps analog modem traffic, it should phase-in a new standard over a period of several years. It should also immediately adjust or eliminate the interim USF “cap.” High-cost support payments currently fall far short of the expense adjustment payments allowed under the rules before imposition of the Commission's “interim” cap. With the cap in place, companies that invest in new plant to

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works with longer loops, well in excess of the current ADSL (Asymmetric Digital Subscriber Line) limit of 18,000 feet.

<sup>8</sup> See Deployment of Wireline Services Offering Advanced Telecommunications Capability, *et. al.*, CC Docket No. 98-147, *Memorandum Opinion and Order, and Notice of Proposed Rulemaking*, 13 FCC Rcd 24011 (1998).

meet the revised standard for universal service funding will only find that there is no additional funding available – a patently unfair result.

### **Conclusion**

The Commission should refrain from revising the current minimum bandwidth requirements for voice grade universal service. Revising the standard will impose significant cost burdens on telephone companies serving rural areas, without any real benefit to consumers. The Commission should instead direct its efforts to developing ways to speed the deployment of advanced broadband services in rural areas. The Commission should also remove the USF cap, which impedes investment in high cost rural areas.

Respectfully submitted,

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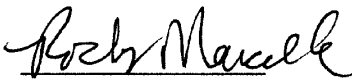
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